

LI.—*Descriptions and Records of Bees*.—LXXII.
By T. D. A. COCKERELL, University of Colorado.

Liphanthus subulosus, Reed.

This insect was described by Reed as a new genus of Philanthidæ. Friese and Ducke refer it to *Psænynthia*, but it is a peculiar little species, with remarkably long filiform male antennæ, and I am inclined to accept Reed's generic name. A specimen from the British Museum is labelled "Chili," and Mr. Meade-Waldo informs me that Philippi had proposed a new generic and specific name, which was not published.

Tetralonia hirsutissima, sp. n.

♀.—Length about 14 mm.

Robust, black; the head, thorax, and two basal segments of abdomen with long erect white hair; sides of face, vertex, and cheeks anteriorly with black hair; head extremely broad; mandibles robust, black, with no orange spot; labrum covered with white hair; clypeus strongly punctured; antennæ black, third joint almost as long as next three combined; mesothorax dull; no intermixture of dark hair on thorax above; legs with hair mostly white, but black on inner side of basitarsi and dark chocolate on inner side of hind tibiæ; hind spurs not hooked; tegulæ black. Wings dusky translucent, venation ordinary. Abdomen with white hair-patches at sides of segments 2 to 5, that on 2 rather small, the others large, transverse, and brilliant white; other parts of these segments (except second) black; apical segment with shining chocolate hair; venter with bands of white hair.

Hab. British Columbia, 4. 11. 07 (*Capt. G. A. Beazeley*; British Museum). It also has a type-written label, "Toba."

Among the North-American species it falls nearest to *T. lata* (Prov.), described from Vancouver I., but it is easily known by the long white hair and spotted abdomen. It has a South-American aspect, recalling such species as *T. bipunctata*, Friese. The locality may be erroneous; could it have come from Chile, where the bees are so often black and greyish-white haired? I do not find any S.-American species with which I can identify it.

Protandrena scutellata, sp. n.

♀.—Length nearly 7 mm.

Rather slender; head and thorax black, with very scanty

pale hair; pale yellow markings as follows:—base of mandibles, upper part and middle of clypeus (but not lower corners or margin, which are brown), transverse supra-clypeal mark, tubercles connecting with band across prothorax (slightly interrupted in middle), scutellum (except irregular anterior edge), and postscutellum. Process of labrum brown, extremely broadly truncate; clypeus sparsely punctured; facial quadrangle broader than long; eyes pea-green; flagellum very bright ferruginous beneath except at base, and red at apex above; mesothorax dull, minutely granular; area of metathorax granular, scarcely defined; legs rufopiceous, the tarsi ferruginous; anterior and middle knees and their tibiae at base outwardly pale yellow; anterior tibiae ferruginous in front; tegulae testaceous, with a yellow spot. Wings pale brown; nervures and stigma (which is rather large) dull red; b. n. falling far short of t. m.; first r. n. joining second s. m. a short distance from its end. Abdomen rather long and narrow, shining black, with broad ferruginous bands at bases of second and third segments, extending downwards (caudad) at sides, and some red at sides of fourth; third and fourth segments with very thin hair-bands; apex with ochreous hair; pygidial plate large. The thin scopa of hind tibiae has collected orange pollen. Maxillary palpi 6-jointed.

Hab. Acaguizotla, Guerrero, Mexico, 3500 ft., October, 2 ♀ (*H. H. Smith*; British Museum).

Very distinct by the yellow scutellum and postscutellum, but somewhat related to the Mexican *P. modesta* (Smith).

Chelynia herberti, sp. n.

♀.—Length about 6 mm.

Black, with cream-coloured markings. Very close to *C. permaculata* (Ckll.), but much larger, wings strongly dusky in marginal cell and apical field; instead of spots above eyes are long transverse stripes (each longer than the interval between them), mesothorax anteriorly with two transverse spots, tegulae with small light spots, transverse dorsal marks on third and fourth abdominal segments only narrowly separated, and none of them as widely separated as half the length of one. Also very close to *C. nyssonoides* (Brues), but second r. n. joining second s. m. nearer end, wings dusky, vertex and mesothorax punctured about alike, bands instead of spots on head above, lateral spots on first abdominal segment not larger than the middle ones, and other small details.

Hab. Chilpancingo, Guerrero, Mexico, 4600 ft., October (H. H. Smith; British Museum).

In *C. permaculata* the mandibles have a large bright red subapical spot, but in *C. herberti* this is represented only by an obscure reddish tint. Both species have a white band along anterior orbits.

Strandiella ruficornis, sp. n.

♂.—Length about 7.5 mm.

Shining black, slender, with dark fuliginous wings; head broad, eyes converging below; face densely covered with white hair; mandibles bidentate, apical half chestnut-red; maxillary palpi 6-jointed, joints measuring in microns (1) 96, (2) 64, (3) 50, (4) 50, (5) 50, (6) 64; antennæ short for a male; third joint 160 microns long, fourth 128; scape rather slender, curved, with very long hair; flagellum thick, clear ferruginous beneath except at base; front and vertex strongly punctured; a smooth space on each side of ocelli; mesothorax and scutellum very strongly but sparsely punctured; area of metathorax triangular, with irregular large rugæ; sides of metathorax shining and finely punctured; legs piceous, anterior tibiæ and tarsi pale reddish brown in front; tegulæ dark brown, with a very large fulvous spot; stigma large; b. n. falling short of t.-m.; two s.m. cells, about equally long (second very long), the second receiving first r. n. some distance from base and second near apex; abdomen polished, with very sparse punctures, a constriction at base of second segment; sides subapically with dark hair; apical plate small and rounded.

Hab. Willowmore, Cape Colony, Dec. 19, 1911 (*Dr. Brauns*; British Museum).

Nearest to *S. glaberrima*, Friese, but distinguished by the colour of the antennæ and the shining male abdomen. The insect looks like some small fossorial wasp.

S. longula, Friese, is herewith designated as the type of *Strandiella*.

Sphecodes turneri, sp. n.

♀.—Length about 8 mm.

Head, thorax, antennæ, and legs black, with thin dull white hair; abdomen bright ferruginous, with the last segment black and the apical half of fourth strongly suffused with blackish; head very broad, facial quadrangle much broader than long; sides of face with appressed dull white hair; clypeus irregularly rather densely punctured, with no

median groove; mandibles bidentate, obscurely red apically; process of labrum very broadly truncate; mesothorax polished, shining, with sparse strong punctures; greater part of scutellum impunctate; area of metathorax with very strong plicæ; tegulæ piceous, punctured. Wings dilute fuliginous, paler at base; stigma and nervures dark; only two submarginal cells, the second receiving both recurrent nervures. Abdomen shining, with fine and obscure irregular punctures; second segment slightly depressed at base; hair at apex soot-colour.

Hab. Shillong, Assam, May 1903 (*R. Turner*; British Museum).

Smaller than *S. fumipennis*, and with more of abdomen red than *S. montanus*. It is also readily known by having only two submarginal cells, a character which it shares with the American *S. (Dialonia) antennaria*, Rob., and *S. distolus*, Lovell.

Ecomalopsis perimelæna, sp. n.

♀.—Length about 8.5 mm.

Robust, black, with black hair, except that on dorsum of thorax, which is clear white; mandibles bidentate, with a fulvous subapical patch; eyes converging below, but face broad; ocelli quite large, in a curve; antennæ entirely dark, flagellum short; discs of mesothorax and scutellum bare, polished and shining, with only very minute scattered punctures; legs with dense black hair, scopa of hind tibia and basitarsus very large, dense and compact, but with many long black hairs projecting beyond the general mass; tegulæ black. Wings rather short, strongly smoky; b.n. meeting t.-m.; marginal cell ending in a point (slightly appendiculate) away from costa; second s.m. subtriangular, receiving first r.n. at its apex; third s.m. at least as large as first. Abdomen broad and short, smooth and shining, with black hair at apex.

Hab. V. del Lago Blanco, Chubut, Patagonia (British Museum).

A very peculiar species, not a typical *Ecomalopsis*. *E. herbsti*, Friese, is black-haired, with disc of thorax and head above white-haired, but it has the scopa pale.

Halictus hesperus, Smith.

Bugaba, 800–1500 ft., and Torola, 1000 ft. (*Champion*; British Museum).

Pachyprosopis kellyi, sp. n.

♀.—Length about 5 mm.

Rather robust, but head not enlarged; shining, almost without hair; head orange, finely and sparsely punctured, with a pair of very broad black bands passing halfway down the front from the lateral ocelli; the narrow facial foveæ, interocellar region, and occiput also black; antennæ fulvous, the short flagellum black or nearly so above; mesothorax terra-cotta red, the punctures so minute as to be hardly visible with a lens; scutellum and axillæ orange; postscutellum and shining area of metathorax black; truncation (except upper part) and sides of metathorax, and pleura except narrow upper and broad lower part, yellowish fulvous; legs orange-fulvous, anterior femora black behind except at apex, middle and hind tibiæ black on outer side, their tarsi brownish; tegulæ pellucid. Wings hyaline; stigma large, black, obtuse apically; marginal cell bulging below; first r. n. joining first s. m. near apex; second s. m. narrow and elongated above. Abdomen orange, with dorsal region black from middle of first segment to end of fourth, the orange indenting the black at sides; a black mark at extreme sides of first segment; venter orange.

Hab. Mt. Yule, Healesville, Victoria, on *Eucalyptus calophylla rosea*, Feb. 20, 1915 (*R. Kelly*; British Museum).

Quite unique by its peculiar markings; except for the venation, it could go in *Euryglossa*.

AUSTRODIOXYS, gen. nov.

Parasitic bees, similar in form and colour to *Dioxys*, with two submarginal cells; eyes bare; scutellum produced, overlapping postscutellum, very broadly truncate, more or less emarginate in middle, the posterior corners angular though not sharp, the margin above the corner translucent; no tooth on postscutellum; stigma small, lanceolate; marginal cell broad, very obliquely truncate, appendiculate, formed essentially as in *Ammobates carinatus* (not rounded at end as in *Dioxys*); first s. m. more than twice as large as second, receiving first r. n. very near its end; second s. m. very broad below, much narrowed above, receiving second r. n. not much beyond middle; b. n. going a little basad of t.-m.; pubescence minute and appressed, as in *Epeolus*; apex of abdomen broadly truncate, with two large rounded projecting teeth, shaped like the tip of a finger; legs bristly; no pulvilli; anterior claws bifid at end, the others simple.

Austrodioxys thomasi, sp. n.

♂.—Length about 7 mm.

Moderately slender; head and thorax coarsely and closely punctured, but shining between the punctures, abdomen densely rugoso-punctate. Head and thorax black, with faint suggestions of reddish spots on scutellum, and a reddish tint on sides of thorax beneath wings; legs bright ferruginous; abdomen with the first three segments bright ferruginous, the others black, all with narrow, apical, pale ochreous-tinted hair-bands; face densely covered with pale ochreous-tinted hair; antennæ slender, rather dark ferruginous; tubercles, upper border of prothorax, and parts of pleura with appressed pubescence, mesothorax with browner hair, not hiding the surface; tegulæ ferruginous. Wings hyaline, slightly reddish; stigma and nervures pale ferruginous.

Hab. Argentina (*O. Thomas*; British Museum).

A curious isolated genus, resembling *Dioxys*, but structurally very distinct.

Halictus etheridgei, sp. n.

♀.—Length 9.5 mm.

Black, very robust; pubescence dull white, abundant on cheeks, sides of thorax, and postscutellum; vertex, disc of mesothorax, and posterior border of scutellum with black hair; head extremely broad; clypeus shining, with rather widely separated large punctures, and a deep median sulcus which extends upward over supraclypeal area; mandibles black, reddish at extreme tip; antennæ black, scape very long, flagellum short; front dull and granular; mesothorax shining but quite densely punctured, the punctures large and very minute; scutellum distinctly bigibbous, with minute punctures and scattered larger ones; metathorax sharply truncate, the basal area poorly defined, with dense, wrinkled, labyrinthiform rugæ all over; mesopleuræ finely striate; spurs pallid; tegulæ piccous. Wings dusky; stigma rather small, dull reddish, nervures fuscous; second s.m. quadrate, very broad; first r. n. meeting second t.-c.; outer r. n. and t.-c. very slender; third s.m. short. Abdomen shining, finely and evenly punctured, including broad apical depressed part of segments; no hair-bands or patches, but a fine pale pruinosity due to thin hair; hair surrounding caudal rima dark fuscous; venter with only short stiff hair, but collecting pollen toward base.

Hab. Yallingup, S.W. Australia, Dec. 23, 1913–Jan. 23, 1914 (*R. E. Turner*; British Museum).

Distinctly *Halictus*, not *Parasphecodes*; recognized at once among the large black species by the sculpture and sulcate clypeus.

Euryglossa ruberrima, Ckll.

♀.—Mt. Yule, Healesville, Victoria, on *Eucalyptus calophylla rosea*, Feb. 20, 1915 (*R. Kelly*).

The metathorax varies to entirely black. A characteristic feature of this species is the pair of large reddish-fulvous spots at sides of fifth abdominal segment.

Euryglossa perpulchra, sp. n.

♂.—Length about 5 mm.

Head and thorax black, with thin, rather long, dull white hair; mandibles white, ferruginous at apex; labrum pale; head broad, with very large eyes, which converge above, the inner orbits strongly arched outward; face depressed; clypeus shining, finely punctured; front dull, except the pronounced median sulcus and a line along orbits, which are shining; scape black, with a yellow spot at end; flagellum extremely short, subclavate, pale yellow, with the apical half above and nearly as much below dark brown; mesothorax polished, with a large square yellow patch in front, and yellow lateral margins above the tegulae; scutellum, axillae, and stripe on postscutellum (broad in middle) clear canary-yellow; tubercles and a small mark behind yellow; legs clear canary-yellow, anterior tibiae short; tegulae hyaline, with a yellow patch. Wings perfectly clear, the large stigma and the nervures almost colourless; first s.m. at least twice as large as second, the latter subquadrate. Abdomen bright canary-yellow above and below, without spots or bands, but with a faint reddish suffusion beyond the middle.

Hab. Kalamunda, S.W. Australia, Feb. 9–28, 1914 (*R. E. Turner*; British Museum).

A remarkable and very beautiful species, most like *E. blanda*, Sm., but very different by the thoracic markings &c.

Euryglossina sulphurella, var. *perlutea*, var. n.

Entirely bright canary-yellow, the head and thorax above with variable faint reddish suffusion.

Hab. Kalamunda, S.W. Australia, Feb. 9–28, 1914 (*R. E. Turner*; British Museum).

The original specimens of *E. sulphurella* have the head bright yellow, but the thorax and abdomen very pale; they appear to be immature, and possibly should show brighter colours.

Prosopis fulvicornis, Smith.

This species has been rediscovered at Kalamunda, Feb. 9-28, 1914, and March 1-11, 1914 (850 ft.), by Mr. R. E. Turner. Smith's description is good, but the sex described is male, not female, and the yellow spot on anterior femora is at the apex, not at the base. The second s.m. is very broad (long). The type of *fulvicornis* was in the Baly collection, and until now the species has not been represented in the British Museum.

Prosopis elongata, Smith.

Kalamunda, Feb. 9-28 (*R. E. Turner*; British Museum). The wings are dusky and the second s.m. is not especially long.

LII.—Notes on *Fossorial Hymenoptera*.—XXII. On new Ethiopian Species. By ROWLAND E. TURNER, F.Z.S., F.E.S.

Family *Psammocharidæ*.

Genus *BATOZONUS*, Ashm.

Batozonus, Ashm. *Canad. Entom.* xxxiv. p. 81 (1902).

Heteronyx, Sauss. *Soc. Entom.* ii. p. 3 (1887) (nom. præocc.).

The type of *Batozonus* is *B. algidus*, Sm., that of *Heteronyx* is *H. madecassus*, Sauss. The tarsal unguis are bifid in the male, but in the female the unguis of the fore tarsus only are bifid, the others being unidentate. The cubitus of the hind wing originates before the transverse median nervure in both sexes, and the third cubital cell is always shorter than the second on the radius, often almost quadrate. The middle joints of the flagellum are strongly arcuate beneath in the male. The differences between the sexes are very striking in this genus.